

PETRO EXPLO INC.

Safety Data Sheet


Date: 1/21/2021

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SECTION 1- IDENTIFICATION

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|---|--|---|
| PRODUCT NAME: | | E045 Instantaneous Electric Detonator |
| RECOMMENDED USES: | | Initiating Explosive |
| *****EMERGENCY RESPONSE CHEMTEL 800-255-3924 CONTRACT MIS0003458 | | |
| MANUFACTURER: | | RJC Defesa e Aeroespacial Ltda |
| | | Estrada Do Piaugi MK 01, Bairro Porto Do Meira |
| | | 12.600- Lorean S.P. Brazil |
| Non-Emergency or for more information 817-478-8888 | | |

SECTION 2- HAZARDS IDENTIFICATION

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| GHS CLASSIFICATION: EXPLOSIVES | |
| SIGNAL WORD: WARNING FIRE OR PROJECTION HAZARD | |
| PICTOGRAM: | |
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| PRECAUTIONARY STATEMENTS: | |
| P210: KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. NO SMOKING | |
| P240: GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT | |
| P250: DO NOT SUBJECT TO GRINDING/SHOCK/FRICTION | |
| P280: WEAR FACE PROTECTION | |

SECTION 3- COMPOSITION/INFORMATION ON INGREDIENTS

| CHEMICAL OR TRADE NAME | CHEMICAL FORMULA | CAS NUMBER |
|--|--|-------------------|
| PETN | C ₅ H ₈ N ₄ O ₁₂ | 78-11-5 |
| Lead Azide | Pb (N ₃) ₂ | 13424-46-9 |
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| ***EXPLOSIVE CONTENT IS A SPECIAL MIXTURE IN A METAL SHELL*** | | |

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| SECTION 4- FIRST AID MEASURES | |
|---|--|
| EMERGENCY AND FIRST AID PROCEDURES: | |
| EYES- WEAR FACE PROTECTION- IF INJURY OCCURS SEEK EMERGENCY MEDICAL ATTENTION | |
| SKIN- WEAR PROTECTIVE GLOVES/CLOTHING. IF INJURY OCCURS SEEK EMERGENCY MEDICAL ATTENTION | |
| INHALATION- MOVE VICTIM TO FRESH AIR. SEEK EMERGENCY MEDICAL ATTENTION | |
| INGESTION- SEEK EMERGENCY MEDICAL ATTENTION | |

| SECTION 5- FIRE FIGHTING MEASURES | |
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| EXTINGUISHING MEDIA: | Water sprinkler/deluge system recommended |
| | In case of fire, evacuate area |
| | Explosion Risk |
| | DO NOT fight fire when fire reaches explosives |
| FIRE FIGHTING PROCEDURES | Do not attempt to manually extinguish fires. Burning explosives may accelerate to a detonation at any time when subjected to confinement, shock, or other sufficient initiation source. |
| SPECIAL HAZARDS CAUSED BY THE SUBSTANCE, ITS BURNING RESIDUES OR RESULTING GASES | In case of fire hazard or explosion. In any case it has to be prevented that the fire catches the product. No trials to extinguish when the fire has caught the product, look for safe shelter, approximately 1000 feet. |

| SECTION 6- ACCIDENTAL RELEASE MEASURES | |
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| Personal precautions, Protective equipment, and Emergency procedures: | Removal of ignition sources. Do not eat, drink, smoke when working. Avoid contact with eyes. Keep unauthorized persons away. |
| Environmental precautions: | Do not let into sewerages or waters. After penetration of waters, immediately notify authorities. |
| Procedures for cleaning/picking up | Pick up by hand or other non-sparking tools and put into clean and marked containers which can be covered. Avoid impact and friction. Do not use sparking tools. After all is picked up, drown area with water. In case of rain, cover the product with a tarpaulin. |

| SECTION 7- HANDLING AND STORAGE | |
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| Handling | Protect from fire. Open and handle containers with care. Keep away ignition sources. Do not smoke. Avoid impact and friction. |
| Storage | Store in a cool dry place in original packaging. Store in accordance to all state and national regulations. |
| STORE ONLY IN APPROVED MAGAZINES, IN ORIGINAL PACKAGING. STORAGE AND HANDLING MUST BE CARRIED OUT WITH ONLY TRAINED PERSONNEL ACCORDING TO SAFETY AGENCY REGULATIONS. | |

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SECTION 8- EXPOSURE CONTROLS/PERSONAL PROTECTION

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|--------------------------------|---|--------------------------------|
| CONTROL PARAMETERS: | Contains no substances with threshold limit value | |
| ENGINEERING MEASURES | Install efficient earthing at working place. Do not use sparking tools | |
| HYGIENE MEASURES | Keep away from foodstuff, beverages, and feedstuff. Avoid contact with eyes. Wash hands before breaks, and when finished. | |
| INDIVIDUAL PROTECTION MEASURES | Breathe Protection | In case of dust, dust mask |
| | Hand Protection | Not needed if handled properly |
| | Eye Protection | Not needed if handled properly |
| | Body Protection | Not needed if handled properly |

SECTION 9- PHYSICAL AND CHEMICAL PROPERTIES

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| Boiling Point | N/A | Specific Gravity (H ₂ O=1) | 1.7 |
| Vapor Pressure (mm Hg) | N/A | Melting Point | 200°C |
| Vapor Density (Air=1) | N/A | Evaporation Rate | N/A |
| Solubility in Water | N/A | | |
| Appearance and Odor: Explosive Content in an Aluminum Shell. Odorless. | | | |

SECTION 10- STABILITY AND REACTIVITY

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| Chemical Stability | Stable under normal conditions |
| Conditions to Avoid | Keep away from any heat source. Avoid sparks, flames, friction, or impact. Do not remove any material from inside case/cover |
| Incompatible Materials | Volatile or corrosive chemicals, fuels, acids, and bases. |
| Hazardous Decomposition | None as long as the recommended handling, transport, storage & use are met, In the event of fire, the produced gases may include lead compounds, carbon monoxide, and nitrogen oxides. |
| Risk of Hazardous Reactions | No risk of spontaneous reactions. |

SECTION 11- TOXICOLOGICAL INFORMATION

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| Overexposure Effects- The produced gases may include lead compounds, carbon monoxide and nitrogen oxides, which may be toxic. | |
| Inhalation | None under normal conditions. If gases are inhaled, overexposure may cause nausea, headaches, and possibly unconsciousness. If any of these effects occur, seek medical attention immediately. |
| Skin | None under normal conditions. Given the composition of the accessory, it is unlikely it will cause irritation. |
| Eyes | None under normal conditions. If for any reason the explosive mass contacts the eyes, it may cause irritation. |
| Ingestion | Accidental ingestion of the explosive mass causes gastrointestinal disorders. |
| Overexposure Symptoms- No symptomatology when the authorized procedures for storage and handling and use are met. | |
| Safety Precautions | Avoid inhaling the gases resulting from combustion |

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| SECTION 12- ECOLOGICAL INFORMATION | |
|------------------------------------|---|
| Ecotoxicity | This is an assembled product that does not expose its contents under normal conditions of handling. |
| Persistence Degradability | Not Applicable |
| Bioaccumulation | Bioaccumulation is not expected |
| Environmental Effects | This is an assembled product that does not expose its contents under normal conditions of handling. |

| SECTION 13- DISPOSAL CONSIDERATIONS | |
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| Waste Treatment Methods: | All waste must be handled in accordance with the local, state and federal regulations. Use only properly trained personnel and proper procedures. Consult explosives manufacturer in case expert personnel is unavailable. |
| Disposal of packages or containers | All waste must be handled in accordance with the local, state and federal regulations. Disposal by only properly trained personnel. Consult explosives manufacturer in case expert personnel is unavailable. |

| SECTION 14- TRANSPORTATION INFORMATION | |
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| Proper Shipping Name | Detonators, Electric, UN 0255, PG II, 1.4B |
| Part Number/Name | RJ 045 Instantaneous Electric Detonator |
| EX Number | 2014010900 |
| Dimensions | 328 x 184 x 128 mm |
| Net Weight | 2.05 kg |
| Gross Weight | 3.8 kg |
| Net Explosive Content | 0.0250 kg per case |
| Marine Pollutant: No | |
| Reference 49 CFR for specific Department of Transportation (DOT) shipping requirements | |

| SECTION 15- REGULATORY INFORMATION | |
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| 1.4 B - Explosive Regulations on Control of Explosives for Civilian/Commercial use by the Bureau of Alcohol, Tobacco, Firearms, and Explosives. Regulations on Transportation of Explosives for Civilian/Commercial use by the Department of Transportation. | |

| SECTION 16- OTHER INFORMATION | |
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| The information contained herein is furnished without warranty of any kind. Employers should use this information as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from other sources to assure proper use of these materials and the safety and health of employees. | |